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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10:075,142	02/14/2002	John Greene	7385-82248	6885

7590

05/22/2003

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EXAMINER

DOAN, JENNIFER

ART UNIT

PAPER NUMBER

2874

DATE MAILED: 05/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/075,142

Applicant(s)

GREENE ET AL.

Examiner

Jennifer Doan

Art Unit

2874

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 February 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1-32 are rejected under 35 U.S.C. 102(e) as being anticipated by Wickman et al. (U.S. Patent 6,547,454).

Regarding claims 1, 8, 11, 20, 22, 26 and 28, Wickman et al. disclose (Figs. 1-10) an apparatus and a method of aligning an optical array with a substrate comprising steps of aligning the substrate (5) with a set of alignment structures on an aligning fixture (23); transmitting a plurality of optical signals from the fixture through the aligned substrate (abstract, lines 1-5 and column 1, lines 52-62); determining a location of the transmitted optical signals (25); determining a location of the optical array (8) and aligning the optical array to the substrate based upon the determined locations of the transmitted plurality of optical signals and optical array using a pick and place machine (column 2, lines 30-51 and column 3, lines 22-30); identifying first and second plurality of registration marks with first and second recognition modules and attaching the optical array to the substrate, such that the first plurality of registration marks of the optical array are located at a known distance from the second plurality of registration marks in the alignment fixture with respect to a plane created by the substrate (column 3, lines 11-22 and column 6, lines 42-53).

Regarding claims 2, 3, 12, 13, 21 and 27, further (Figs. 1 and 9) defining the set of alignment structure as a plurality of passive alignment guide pins (27) protruding from a top surface of the alignment fixture (23); wherein the step of aligning the substrate with a set of alignment structures on an alignment fixture further comprises inserting the plurality of guide pins (27) of the alignment fixture (23) through a plurality of apertures (21) in the substrate (5).

Regarding claims 4, 14, 17, 23 and 29, further (Fig. 1) transmitting a plurality of optical signals (25) directly through the substrate (5).

Regarding claim 5, further identifying the plurality of optical signals transmitted from the fixture with a first optical detector, for location the position of the optical signals in a reference plane created by the substrate (column 5, lines 5-10).

Regarding claims 6 and 15, further identifying a plurality of reference marks (4, Fig. 2) on the optical array (8) with a second optical detector, for locating and aligning the array to the substrate (5) (column 3, lines 5-22).

Regarding claims 7, 16, 24 and 30, further defining the second plurality of registration marks on the substrate as a substantially thin layer of metal (column 3, line 11-column 4, line 24).

Regarding claims 9, 18 and 31, further attaching the optical array to the substrate with an adhesive (column 5, lines 32-36).

Regarding claims 10, 19, 25 and 32, further disposing a set of conductive traces (2, Fig. 2) on the substrate for electrically connecting the optical array (column 3, lines 11-22).

Response to Arguments

4. Applicant's arguments, see pages 2-5 of the remarks, filed 02/26/2003, with respect to the rejection(s) of claim(s) 1-32 under Kuczynski (U.S. Patent 6,356,686) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Wickman et al. (U.S. Patent 6,547,454). This action is **NOT** made final.

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Conclusion

5. Applicants' arguments with respect to claims 1-32 have been considered but are moot in view of the new ground(s) of rejection. This action is **not** made final.

6. Any inquiry concerning the merits of this communication should be directed to Examiner Jennifer Doan whose telephone number is (703) 308-6179. The examiner can normally be reached on Monday to Thursday from 6:30am to 4:00pm, first Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick, can be reached on (703) 308-4819. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-7724.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.


AKM ENAYET ULLAH
PRIMARY EXAMINER

JD

JD

May 9, 2003